DOCUMENT RESUME

ED 292 234 EC 202 016

AUTHOR Calitz, L. P.
TITLE A Competency Based Teacher Training Programme for the Instruction of Gifted and Talented Children.
PUB DATE Jun 84
NOTE 21p.; Paper presented at the International Conference: Education for the Gifted "Ingenium 2000" (Stellenbosch, Republic of South Africa, June 26-29, 1984).
PUB TYPE Speeches/Conference Papers (150) -- Information Analyses (070)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Ability Identification; Acceleration (Education); Classroom Techniques; *Competency Based Teacher Education; *Curriculum Development; Educational Needs; Enrichment Activities; Foreign Countries; *Gifted; *Individual Needs; Preservice Teacher Education; *Special Programs; *Talent; Teacher Qualifications; Teacher Role; Teaching Methods; Teaching Skills

ABSTRACT

A competency-based approach to gifted education is presented which recognizes the importance of developing teaching approaches to meet the needs of individual children. The paper begins with a definition of giftedness and talent and a description of parameters in the planning and design of a curriculum for gifted pupils. Four differentiation strategies to meet individual educational needs are outlined: enrichment, acceleration, individualization, and grouping. Characteristics of gifted children and special qualities needed by teachers of the gifted are listed. Competency-based teacher education is described as an attempt to improve teaching directly, through scientific methods. Basic teaching functions are explained, along with teaching skills and competencies which support those functions. The final section discusses the change in the teacher's role from being the only source of knowledge to being a manager of educational resources. Classroom management techniques for effectively implementing this new role are reviewed. (JDD)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

C.66

A COMPETENCY BASED TEACHER TRAINING PROGRAMME FOR THE INSTRUCTION OF GIFTED AND TALENTED CHILDREN.

ED292234

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Prof. L.P. Calitz

POTCHEFSTROOMSE UNIVERSITY FOR CHRISTIAN HIGHER EDUCATION

POTCHEFSTROOM

2520

RSA.

The Universities' role in the education of the gifted.

"Neither this paper nor any version close to it has been, or is being, offered for publication. The paper will be presented orally at Ingenium 2000 by the author or a co-author";

Calitz.

EC 202016

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

L. P. Calitz

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

A COMPETENCY BASED TEACHER TRAINING PROGRAMME FOR THE INSTRUCTION OF GIFTED AND TALENTED CHILDREN.

1. INTRODUCTION

Who are the children with special educational needs? When educators are considering this question the gifted often remain on the periphery of their deliberations. The views of many teachers can be summarised by the phrase:
"They can quite well look after themselves". Unfortunately, in this rather arid educational climate, gifted children all too frequently do not look after themselves. Their budding promise fails to blossom and they become, as Suzanne Wiener had put it in a Times Educational Supplement review article (11 Febr. 1977), "victims of benign neglect (drifting) rudderless in a sea of conventional teaching". (15:1)

It seems, appropriate at this time, therefore, to reiterate the truism that each individual child requires the education most suited to his particular needs. Every child has special educational needs and this central pedagogical principle is as relevant to the child who has above average abilities as to the child in the below average range. The challenge posed to teachers and administrators is to find ways of organising the school system and of developing teaching approaches which will meet the needs of individual children, from the brightest to the least able.

Crucial to the discussion of any programme for gifted children, is our definition of the term. In formulating one, we must consider the whole realm of values more carefully than we frequently have, and we must also consider the whole framework by which we view our function as educators.

I begin with two assumptions.

(1) The concept of value free education is a myth. We teach values explicity through the curriculum on the virtues of democracy, but also implicitly through the rules, regulations, procedures, ways of relating to the school and the classroom. The democratic teacher teaches democracy, the kind teacher, kindness. (14:238)

(2) The frame or paradigm through which we view individuals and institutions is changing. A paradigm can be defined as a set of shared assumptions which explains the world to us and helps predict its behaviours. It also limits our perceptions, it is difficult to let go of our paradigm, difficult to imagine another one. The word "gifted" is, of course value laden.

In defining gifted we must begin to value and include gifts which go beyond verbal capacity, analysis, and rational thinking, i.e., to gifts such as synthesizing and thinking that is intuitive and nonlinear. We need to include the whole brain in our definition, not merely one part of it. Moreover, if we would have whole people, we need to educate the whole person rather than just the brain.

2. WHAT DOES GIFTED AND TALENTED MEAN?

There are important gifts only partially related to the brain, such as empathy and moral strength, and gifts associated with physical capacities, such as manual dexterity. Finally, in applying this revised definition, we must include children in varied programmes which focus upon their particular gifts and strive to develop the latent capacities of these children, to unfold other gifts yet unrealised. Given this perspective, it is unlikely that we will find many ungifted children.

The more common term in use today is gifted coupled with talented. However, there is still great disagreement as to what these terms mean. They are often defined in terms of the goals of special programmes. Ehrlich (3 : 4) says:

> "Gifted and talented children are those identified by professionally qualified persons who by virtue of outstanding abilities are capable of high performance. These are children who require differentiated educational programs and/or services beyond those normally provided by the regular school program in order to realize their contribution to self and society."

Children capable of high performance include those with demonstrated achievement and/or potential ability in any of the following areas, singly or in combination:

- general intellectual ability
- specific academic aptitude
- creative or productive thinking
- leadership ability
- visual and performing arts
- psychomotor ability (3 : 4).

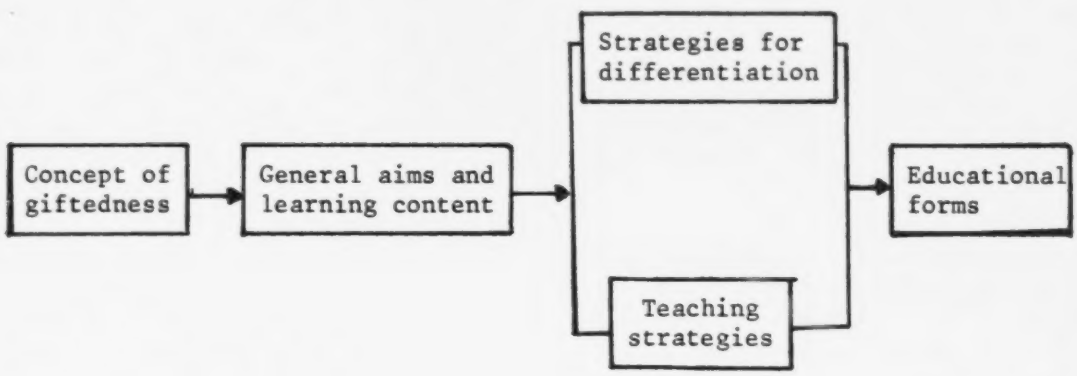
It can be assumed that the utilisation of these criteria for identification of the gifted and talented, will encompass a minimum of 3 to 5 percent of the school population.

The term giftedness may be reserved for intellectual prowess as is shown by scores on conventional intelligence tests and which is characterised by an ability to see and grasp relationships, proficiency in verbal and abstract thought, persistence, intellectual curiosity, versatility and adaptability, and creative thought.

3. CURRICULUM DESIGN FOR GIFTED PUPILS

The formal provision of education to gifted pupils requires that within the framework of the existing educational system, provision should be made for a broad curriculum or programme which can accommodate the edu= cational needs of these children. The basic variables or parameters in the planning and design of a curriculum are the following: the concept of giftedness, general aims which will be attained, the learning content, differentiation strategies, teaching strategies as well as educational forms.

The parameters for the design of a curriculum for gifted children can schematically be presented as follows: (18 : 68)



Differentiation as educational principle strives to meet the educational needs of various individual pupils. The four differentiation strategies which are applicable to the education of the gifted and talented are enrichment, acceleration, individualisation and grouping.

3.1 ENRICHMENT

Enrichment has been the golden promise held out over the years to parents of gifted children and it usually remains just that - a promise. Enrich= ment has acquired a multitude of meanings and has suffered innumerable mis-applications. Among its many meanings, these are but a few.

Enrichment may mean the addition of an extra subject in the curriculum, extra-trips to special interest locations, additional topics covered in the individual curriculum areas, or more homework. Ideally, it menas that pupils' education will be broader in scope, exploring topics in greater depth and at higher levels of difficulty and involving many activities not covered in the regular programme.

3.1.1 RENZULLI'S ENRICHMENT TRIAD MODEL

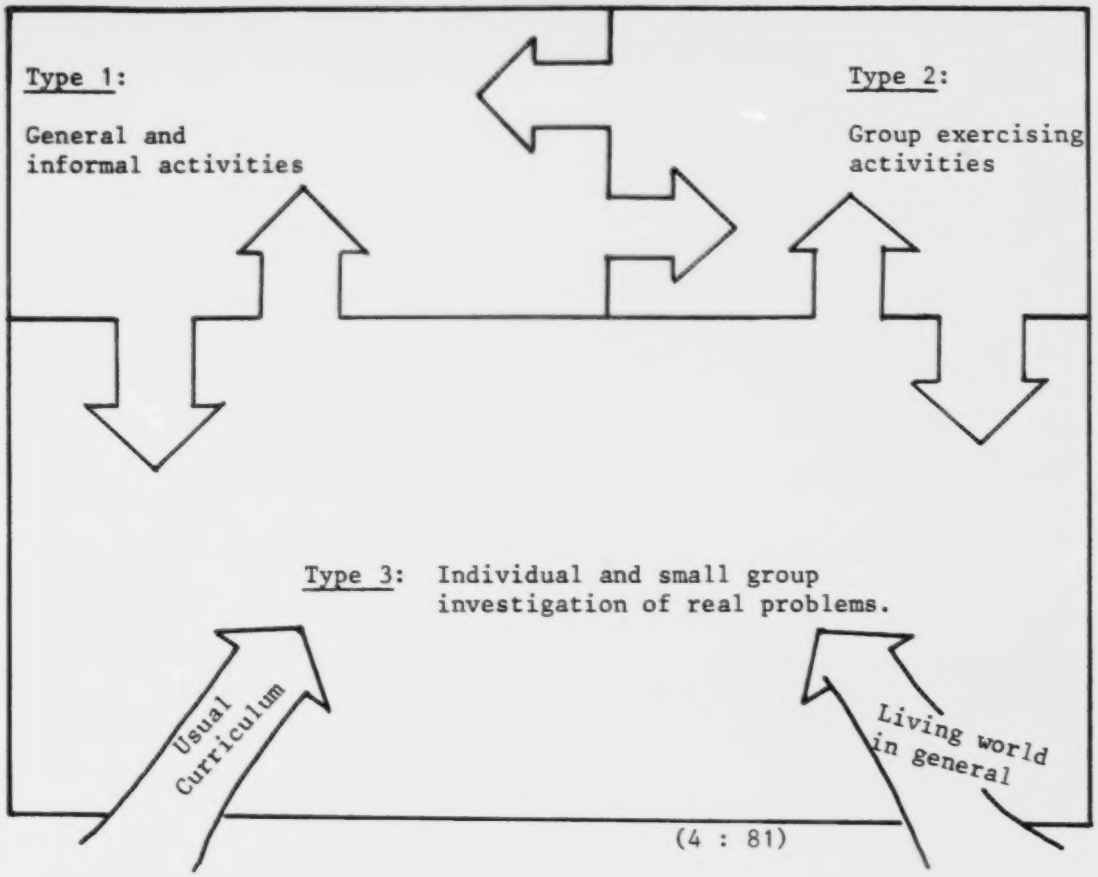
Renzulli's model tends to display three enrichment activities which may be used by gifted children. The first two types, viz. the general, explorative activities and group activities might be used by all pupils but are even more important to the gifted child.

The reason for these activities is that it is aimed at the type 3-activity. It is especially the last kind of activity called the individual activity or the small group research which are some of the real problems suitable for gifted children. These enrichment teaching activities form the main component of the model and schematically they imply that more or less half of the time can be devoted to enrichment activities. The research and investigation of real problems are, according to Renzulli, the keyfactor in designing the curriculum for gifted children. Underlying Renzulli's model is the assumption that giftedness encompasses three basic person= ality traits, viz:

(a) a high level of intelligence;

(b) a high level of task orientation

(c) creativity.



(4 : 81)

The enrichment opportunities can be provided in an ordinary classroom or in a room where the highly gifted pupils may be taught as a homogenous group.

Type 1 - enrichment: General investigating activities

These types of activities are designed to bring pupils into contact with the fields of study or themes in which they are interested. Renzulli suggests that the following two enrichment aims must be met (18 : 81).

(1) Pupils must realize that it will be expected of them to be involved in exploratory activities so that they will enable them to study and analyse specific topics.

(2) Strategies which will enable pupils to come into contact with a variety of subjects and courses of study from which research problems

may be derived. This can be achieved by creating centres of interest in the classroom where information will be available to elucidate a specific course or theme.

Type 2 - Group teaching activities:

These types of activities are concerned with the enhancement of high level cognitive activities as well as affective processes. These kind of activities consist of exercises which the pupils might create to effectively master the learning content. After these kind of exercises have been completed the possibility to think critically, divergently and to extend this to problem solving, application of knowledge, sensitivity and to observation as well as to foster creative and productive thinking will be realised.

In conjunction with what has just been said, the following terminology might be used to define the different types of cognitive as well as affective skills: thinkscrums, observation, taxonomy, interpretation, analysis, evaluation, comparison, categorising, synthesizing, hypothesysing, value determination - to name but a few.

Renzulli also stresses the fact that suitable curriculum modules have been developed to promote higher cognitive thinking.

Type 3 - Individual and small group research of real problems:

These kinds of enrichment activities encompass the research of real problems by the application of suitable research methods. These are in close collaboration with the nature of the gifted child, viz. a broad interest in a variety of aspects as well as a research orientated disposition. The ultimate goal of such an investigation is to obtain a result which can be proposed.

In short, the gifted pupil who gets involved in type 3-activities has the opportunity to do research in connection with real problems. In this research he/she uses the same research methods as those which will be used by a bona fide researcher.

3.2 ACCELERATION

The term acceleration can have several meanings in actual application. It may mean having a child, skip a grade without having to cover the work of the intervening grade. This was common practice early in this century. Acceleration can also mean combining the work of three school years into two years. It can also mean permitting a student to advance in a single subject area at his or her own pace or by doing the work of a higher grade in the subject while remaining in an unaccelerated class for all the other subjects.

The general aim of acceleration is, according to Fox (5 : 117), the opportunity to obtain basic knowledge faster and to advance more rapidly to higher levels of abstraction as well as creative problem solving under the guidance of the teacher. Keating (8 : 188, 128) stresses the fact that good educational acceleration is always enriching and that well planned enrichment will always accelerate the learning of new content. The major difference between these two concepts is then reduced to administrative feasibility:

> " A major goal for all students should be to expose them on a fairly regular basis to novel, challenging, and educationally relevant material. If this is to be accomplished for high-ability students, a higher density of subject matter per time unit will be required. Any educational facilitation that can provide for high-ability students is appropriate, and whether we choose to label this acceleration or enrichment is an administrative rather than edu-

cational decision."

3.3 INDIVIDUALISATION

When education deals with individualisation it implies that the individu= ality of each child will be important. This implies that the interests, abilities, learning styles, dispositions, preferences and disapprovals of each learning child must be accommodated when teaching-learning situations are created.

Individualisation when applied to the teacher is described by Taylor (18 : 77):

> "om die individualiteit van die kind te bevorder deur die onderwys so te organiseer dat voldoende voorsiening gemaak word vir die toe- nemende selfstandige deelname van die kind aan die lesgebeure".

The gifted child will be more eager to independently participate and partake in independant activities in accordance with his talents and ability.

3.4 GROUPING

Homogenous grouping of pupils can be achieved in several ways, e.g. age, intelligence, interest, working tempo, progress or combinations of these variables. According to De Corte (1 : 308), it is impossible to achieve fully homogenous groups in the school. Homogenous groups of pupils in the school are in the true sense of the word, heterogenous of character. Heterogenous groups indicate that the pupils are heterogenous as far as intellectual abilities and learning performances are concerned.

Another way of grouping might be quantitative or qualitative. Qualitative grouping implies that pupils are grouped in permanent or inconstant groups in accordance with different criteria excluding size. Quantitative grouping indicates the size of the permanent or inconstant groups of pupils.

4. IDENTIFYING THE INTELLECTUALLY GIFTED

It would be very convenient if the teachers themselves could accurately identify the most able, using their Special Knowledge of their charges. It seems likely that teachers develop a fairly rigid set of values by which they judge all the pupils they teach, and that these values are a result of their training and experience (15 : 112).

When Nash (12) investigated the way a group of primary teachers perceived their pupils he discovered that they saw them primarily in terms of "their work habits, their maturity and their classroom behaviour. It is interesting to note that none deals specifically with the child's abilities." Hargreaves (6) found that some secondary teachers had a rather similar hierarchy of values. Personal appearance, conformity to discipline and to the academic role, likeability, and relations with peers were the aspects of behaviour most used by the teacher in evaluating their pupils.

The view from the teachers desk is different from that of the parent's living room. The child should give evidence of at least some of the following characteristics.

- Creativity in one or more areas
- Interest in many things
- Clarity of thought and language
- Insight into and penetration of subject matter
- Emotional stability
- Good character
- Social leadership
- Self-reliance
- Sensitivity to the needs and feelings of others
- Intellectual curiosity by frequently asking many questions
- Ability to reason logically

- Ability to plan and organise
- Ability to explain reasons for actions
- Ability to see relationships
- Ability to concentrate and pursue work or interests to an unusual degree despite difficulties
- Ability to put ideas clearly and correctly into writing
- Ability to deliver work above grade level in several curriculum areas

Combined with these characteristics, any objective evidence of superior ability provided by classroom work or standarised achievement tests, particularly in reading comprehension and arithmetical reasoning, as well as any intelligence test used, will add to the efficiency of the identification process (3 : 32).

5. SELF-ANALYSIS FOR TEACHERS OF THE GIFTED

Martinson and Wiener (9 : 20-21) have prepared an excellent scale which teachers can use as a method of self-analysis. Gifted children need to be taught by special people. Endless lists have been formulated about the special qualities needed by teachers of the gifted, but there is in fact no ideal teacher, no one complexity of traits, that will identify a superior teacher of the gifted. What is required is a matching of teacher and pupils on many levels, particularly on characteristics which in themselves are related to giftedness and are displayed by gifted students. Among these traits are the following:

- Talent or intellectual superiority - given the choice, it is wisest to select from among those teachers who rank in the highest range of intellectual ability.
- Empathy / Sympathy - a teacher with this trait will have insight into the way the gifted child thinks and reacts to the environment, and will

be able to understand different ways of learning.

- Acceptance - a readiness to acknowledge the child's ability and an attitude of appreciation and understanding are absolutely essential to creating a productive rapport between teacher and student, particularly during the early years of schooling, but also right through the educational experience.
- Preparation - gifted students usually have their own resources of know= ledge and are very quick to perceive superficiality and certainly mis= information or poor logic.
- Capacity for dealing with complexity - because of the very nature of giftedness, it is essential to study subject matter in greater depth and to a greater degree of complexity than is usual in the average classroom.
- Creativity - there is a sense of kinship among creative individuals. They recognise the divergencies in other people's thinking and the validity of novel approaches to solving problems. If the teacher does not have this capacity, it is unlikely that the trait will be fostered among the students.
- Efficiency - teachers who wish to cope with educating their gifted pupils, must be extremely well organised and must be able to make efficient use of their time and resources. They need to do a great deal of advanced planning in order to be prepared to meet the daily consumption of knowledge and information required by the gifted child, which in most cases will be far greater than that of other children in the class.

Apart from the traits mentioned above, teachers for the gifted should also have a good sense of humour. Armed with a sens of humour, teachers will be able to cope with the many difficult situations presented by the exceptional abilities and knowledge displayed by a gifted pupil in class.

Amongst these receptivity, self-insight, perceptiveness, flexability, patience as well as intellectual integrity will be demanded as charasteris= tics of excellence from the teachers of the gifted and talented.

6. A COMPETENCY-BASED TEACHER TRAINING PROGRAMME

The purpose of teacher education should be to encourage the maturity of teachers as persons and professionals. Teachers who are maturing become more open, more humane, more skillful, more complex, more complete pedagogues and human beings (10, 1, 2).

Beyond the use of observation systems, the most visible attempt to improve teaching directly through scientific methods has been performance- or competency-based teacher education (P/BCTE). Performance or competency-based programmes have been characterised by (1) specification of learner objectives in behavioral terms (2) specification of the means of deter= mining whether performance meets the indicated criterion levels. (3) provision for one or more modes of instruction pertinent to the objectives, through which the learning activities may take place (4) public sharing of the objectives, assessment by criteria, and alternative activities (5) assessment of the learning experience in terms of competency criteria, and (6) placement on the learner of the principal accountability for meeting the criteria.

As Houston and Howsam (12) point out, the use of modules, educational technology, and guidance and management support systems relate to the notion of individualised approaches to teacher education.

The decision of teachers of gifted and talented pupils is concerned with three basic teaching functions:

1. Planning
2. Implementation
3. Evaluation.

6.1 PLANNING

The planning function usually occurs when the teacher is alone and has time to consider long-term and short-term plans: the pupils' progress; the availability of resources, equipment and materials; and the time requirements of particular activities and other issues (13 : 6). Some teaching skills which support this planning function are diagnosing pupil needs, setting goals and objectives and determining appropriate learning activities related to the objectives.

6.2 IMPLEMENTATION

The implementation function requires the teacher to implement the decisions made at the planning stage, especially those related to teaching methods, strategies and learning activities. Teaching skills which support the implementation function include presenting, explaining, listening, introducing, demonstrating, eliciting responses and achieving closure.

6.3 EVALUATION

The evaluation function requires decisions about the availability of objectives and the teaching strategies linked to them and eventually whether or not the pupils are achieving what the teacher has intended.

Teaching skills which support this function include specifying the learning objectives to be evaluated; describing the information needed to make such an evaluation; obtaining, recording and analysing that information and forming judgements.

The four areas of teacher competence identified by Smith (11) represent the broad categories of preparation that teachers need in order to make effective decisions. Competence in theoretical knowledge about learning, attitudes which foster learning and positive relationships, knowledge of the subject matter to be taught and a repertoire of teaching skills and

techniques provide teachers with the tools necessary to make and implement professional decisions.

Modules in a competency-based training programme for the instruction of teachers of intellectually gifted students, may include: statements of objectives and subobjectives, as well as assignments of activities to demonstrate mastery of the basic materials. It also may include cognitive behaviour (B. Bloom's taxonomy); deductive sequencing (R. Gagne's eight levels of learning), learning activities (suggestions based on Bloom's taxonomy), terminal and directing objectives, inductive sequencing of learning activities (problem solving); management systems (learning activity packets, learning centres, grouping, theme development, inde= pendent study, and contracts) and communication (conflict resolution, problem ownership.) (Nasca & Davis, 11 : 2557).

7. CLASSROOM MANAGEMENT BY TEACHERS OF GIFTED AND TALENTED PUPILS

The fact that teachers will no longer be the main source of information and knowledge will bring about role changes. This role change includes new teaching styles, the development of new curricula as well as new interaction between teachers and students. The teaching of gifted and talented pupils necessitates these role changes to be made more rapidly.

Educational technology makes it possible to bring the world into the classroom to improve the learning process and to command attention from the learner. Also, with its approach of setting objectives and using the most appropriate media in the process, it makes accurate evaluation of the learning process possible. There is a need for a change of emphasis from the teacher as the only source of knowledge to the teacher as a manager of educational resources. This should lead to systematic, creative and effective learning experiences (17 : 23).

Renzulli (16 : 42), in stressing the managerial functions of the teacher, says:

> "The teacher's role in type 3 enrichment is mainly a managerial one, and therefore, an important thing to look for is when and how to enter into the learning process as a good manager or resource person".

In creating a well-managed classroom the teacher must do sound planning in several key areas before the school year begins; next, implementing the plan and establishing good management at the beginning of the year; and finally, maintaining the management procedures throughout the year. Just as good classroom management enhances learning by helping to create a sound environment conducive for teaching, so too does effective instruction contribute to a well-managed classroom.

Good instruction supports management by keeping students involved in appropriate learning activities, and it helps prevent failure, frustration, boredom and confusion (4 : 111). The management that good teaching facilitates is that which occurs concurrently with the instruction. Many management activities take place before and after instruction however, and such management provide the bases for both good instruction and effective concurrent management (2 : 19).

The literature includes numerous lists of teachers' management tasks at various levels of specificity while instructing gifted pupils. Omitting budgeting and staffing as rare or peripheral concerns of teachers, the remainder can be reduced to six as follows, with closely related terms in parenthesis.

(a) planning (programming, decision making)

(b) organising

(c) co-ordinating (administering)

(d) directing (commanding)

(e) controlling (reappraising, monitoring)

(f) communicating (reporting).

8. CONCLUSION

Teachers of gifted and talented pupils should be trained effectively to acquire managerial as well as instructional skills. The most effective way of acquiring these skills are through a competency-based teacher training programme. There are many options in existence for organising classroom instruction. However, classroom organisation may be devided into two general categories: teacher-directed learning activities and student-initiated activities. It is extremely important for teachers of gifted and talented pupils to have the skills to provide both types of activities.

-----oOo-----

REFERENCES

(1) De Corte E, Geerligs C T, Lagerwij N A, Peter J J, Vandenberghe R, Beknopte Didaxologie, Wolters-Noordhoff, Groningen, 1981.

(2) Duke D.L, Classroom Management: The Teachers' part in school administration Chicago, Illinois. University of Chicago Press. 447p.

(3) Ehrlich Virginia Z, Gifted Children, A guide for parents and teachers, Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1982, 201 p.

(4) Emmer T, Evertson C M, Sanford J, Clements B, Worsham M E, Classroom Management for Secondary Teachers, Prentice-Hall Inc., Englewood Cliffs, New Jersey, 1984, 191 p.

(5) Fox L H, Programs for the gifted and talented : An overview. In Passow A H (red.) The gifted and talented. Their education and development. University of Chicago Press, 1979, Chicago.

(6) Hargreaves D H, Hester S K, Nellor F J. Deviance in classrooms. Routledge & Kegan Paul.

(7) Houston W B & Howsam R B (Eds.) Competency-based teacher education. Progress problems and prospects, Science Associates Research, Chicago, 1972.

(8) Keating D P (ed.), Intellectual talent : Research and development, John Hopkins, University Press, 1976.

(9) Martinson R A, A guide toward better teaching for the gifted. National State, Leadership Training Institute, Ventura, California, 1976.

(10) McNergney R & Carrier C A, Teacher development, Collier Macmillan Publishers, London, 1981, 257 p.

(11) Nasca D & Davis H, Gifted Education module system. State University of New York, Brockport, Coll, at Brockport, 1979, 167 p.

(12) Nash R, Teacher expectations and pupil learning, Routledge & Kegan Paul, 1976.

(13) Perrott Elizabeth, Effective teaching, a practical guide to im= proving your teaching, Longman, New York, 1983, 197 p.

(14) Philips M, Confluent education, the hidden curriculum, and the gifted child. Phi Delta Kappan 58(3), Nov. 1976, 238 - 240.

(15) Povey R, Educating the gifted child, Harper & Row Publishers, London, 1980, 250 p.

(16) Renzulli J S, The enrichment trial model. A guide for developing defensible programs for the gifted and talented. Creative Learning Press, Inc., Connecticut, 1977.

(17) Report of the work committee : Education technology, Human Science Research Council, Investigation into Education, No. 17, 1981, Pretoria, 72 p.

(18) Taylor C A & v.d. Westhuizen C P. Die onderrig van die begaafde kind. Uitgewery Boschendal, Durbanville, 1983, 205 p.

-----oOo-----